

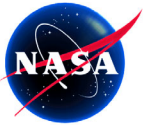
# *AIST Program*

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## *AIST Program Procurement Approach*

Presented to:  
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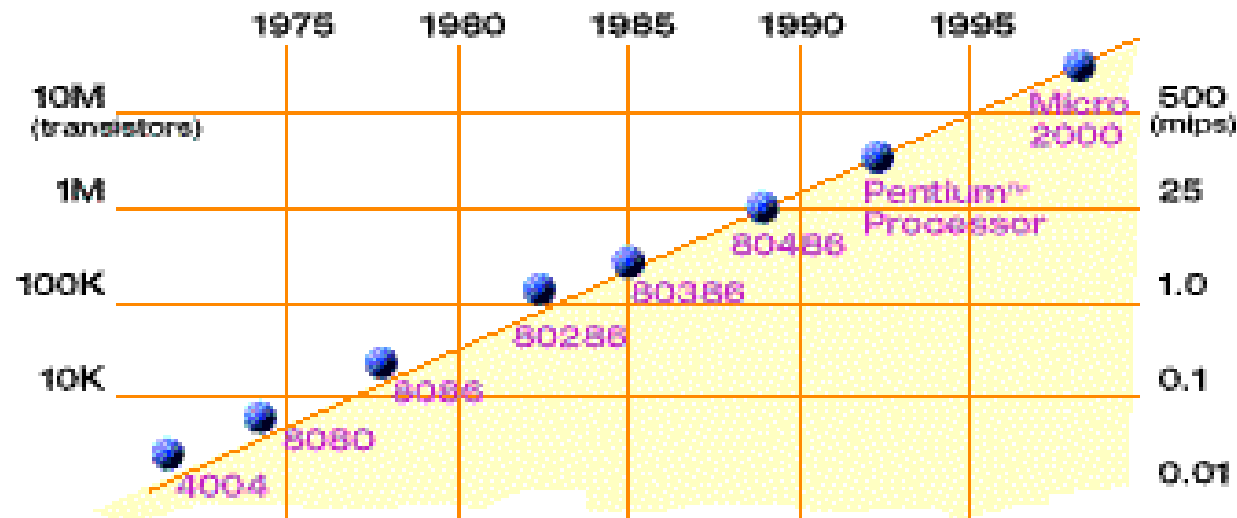


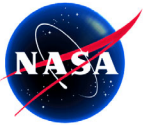
# Moore's Law

## What is Moore's Law?

In 1965, Gordon Moore was preparing a speech and made a memorable observation. When he started to graph data about the growth in memory chip performance, he realized there was a striking trend. Each new chip contained roughly twice as much capacity as its predecessor, and each chip was released within 18-24 months of the previous chip. If this trend continued, he reasoned, computing power would rise exponentially over relatively brief periods of time.

Moore's observation, now known as Moore's Law, described a trend that has continued and is still remarkably accurate. It is the basis for many planners' performance forecasts. In 26 years the number of transistors on a chip has increased more than 3,200 times, from 2,300 on the 4004 in 1971 to 7.5 million on the Pentium II processor.



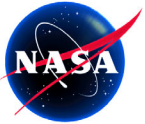


## AIST Procurement Background

Activity	Date	\$/Year/Award	Duration	Total \$/Year
RFI Workshop	Held June 99	-	-	-
AIST Space-based NRA	Released November 99, culminates FY03	\$200K - \$500K per year award range	2 to 3 years duration per award	~\$9M per year total investment spread over 4 FY
EOSDIS Prototyping	FY94 - FY00	\$50K - \$300K per year award range	<1 to 2 years duration per award	\$6M at peak to \$1.4M per year

- Final draft AIST NRA submitted to HQ in September 1999
- OES AA selected 30 awards in April 2000
- Contracts (MOUs, MIPRs) were initiated at the ESTO Centers to distribute workload and "push" management of emerging technology to the field
- Three contracts were not awarded until December 2000 -- 16 months after start of NRA process!
- Technology matured a generation (as measured by Moore's Law) by the time some of the AIST NRA work began!

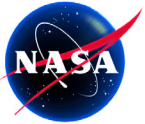




## *AIST Programmatics*

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- AIST program is continually performing:
  - Technology projections and roadmap analyses
  - Next series measurement analyses
  - Investment portfolio evaluation
  - Gap analyses to identify those specific IT topics not currently addressed by outstanding solicitations
- The proposed AIST Prototype System (APS) is designed to complement the 3-year cycle of the NRA focused technology program to
  - Fill technology gaps in AIST Program
  - Leverage dynamic IT environment

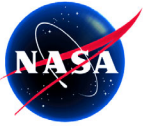


## *AIST Prototype System (APS) Highlights*

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- APS is proposed as a streamlined, peer-reviewed solicitation, selection and award process
- Period of performance limited to less than 24 months
- 5-12 awards in the \$50-300K/year range; total program averaging less than \$1.5M/year (~ 10 - 15% of AIST budget)
- Issue umbrella Broad Agency Announcement (BAA) covering 5 years
  - Release stand-alone, mini-solicitations under BAA as required; post on CBD and NAIS
  - Focused for specific technology identified as missing or requiring immediate investment attention
  - Proposal submission, evaluation, and tracking performed on-line via ESTO e-Books, a la SBIR/STTR process
  - Release to award in less than 4 months





## *APS Proposed Implementation Approach*

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- Issue BAA at Center
  - Individual solicitation topic(s) presented to HQ for concurrence
- Release the BAA under the ESTO Program Manager's signature
- Make the ESTO Program Manager the Source Selection Official
  - Concurrence by HQ
- Allow for ESTO e-Books on-line submission, evaluation, and tracking for APS
  - Already used for Advanced Technology Initiatives (ATI) and AIST NRA status and reporting inputs and tracking



## *Conclusions*

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- The fast paced, "freshness dated" IT arena is a different ball game requiring a rapid response capability!
- The proposed APS is a competed, low dollar, quick turn around, focused approach designed to fill specific ESE IT needs in a timely fashion
- The AIST Program requires this flexibility to maintain a robust and responsive IT program for the ESE